INDEX

UKRAINIAN MATHEMATICAL JOURNAL

Volume 20, Numbers 1-6, 1968

UKRAINIAN MATHEMATICAL JOURNAL

Volume 20, Numbers 1-6, 1968

(A translation of Ukrainskii Matematicheskii Zhurnal)

A

Akhiezer, N.I. - 3
Aleksandrovich, I.V. - 435

B

Baris, Y.S. - 379
Barkovskaya, N.V. - 91
Barkovskii, V.V. - 502
Bartish, M.Ya. - 97, 320
Beiko, I.V. - 623
Beiko, M.F. - 623
Belan, E.P. - 153, 388, 563
Bogatyrev, B.M. 449
Bogolyubov, A.N. - 85
Bozatyrev, B.M. - 536
Breus, K.A. - 205
Brown, T.K. - 631
Burlachenko, V.P. - 213

C

Chaus, N.N. - 191
Chernyshev, S.I. - 737

D

Daletskii, Yu.L. - 327
Danilyuk, I.I. - 25, 316
Davydov, N.A. - 398
Degtyar', V.G. - 332
Dobrovol'skii, V.A. - 78
Drozd, Yu.A. - 221
Dyuzhenkova, L.I. - 655
Dzyadyk, V.K. -137, 523

E

Éidel'man, S.D. - 554
Ezhov, I.I. - 335

F

Fobchuk, V.I. - 260
Fodchuk, V.I. -185, 683

G

Galanov, B.A. - 503
Gavelya, S.P. - 602
Gavrilov, N.I. - 740
Gorbachuk, M.L. - 502, 509
Grankin, E.P. - 719

I

Ilyukin, A.G. - 144, 609
Isaev, L.E. - 228
Ivanitskii, V.G. - 604
Ivanov, V.V. - 742

K

Kalaida, A.F. - 233
Kapilevich, M.B. - 261
Kasperov, V.N. - 135
Kharkhun, G.I. - 363
Khasabov, E.G. - 245
Kirichenko, V.V. - 221
Kolomiets, V.G. - 338
Kompaniets, V.P. - 241
Korenevskii, Ts.G. - 260
Korolev, V.V. - 417
Korolyuk, V.S. - 316
Koromyslichenko, V.D. - 40, 274
Kovach, Yu.I. - 30
Kovaleva, L.M. - 723
Kozubovskaya, I.G. - 112, 239, 493, 502, 614
Kulinich, G.L. - 344
Kushitskii, Ya.S. - 661

L

Lipovoi, G.S. - 536
Litvinchuk, G.S. - 245
Luchka, A.Yu. - 617
Lyantse, V.E. - 422
Lykova, O.B. - 542

M

Malakhovskaya, S.N. - 503
Martynyuk, D.I. - 239
Matiichuk, M.I. - 554
Migovich, F.M. - 673
Mitropol'skii, Yu.A. - 78, 85, 135, 153, 260, 316, 563
Mitropolskii, Yu.M. - 683
Mityuk, I.P. - 116
Moskalyuk, A.V. - 373

N

Naumov, I.A. - 208
Nikolaev, S.I. - 569
Nikolenko, I.V. - 121
Nizhnik, L.P. - 655, 692

O

Orochko, Yu.B. - 348
Ostapov, Yu.G. - 455

P

Pakhareva, N.A. - 435
Palyutkin, V.G. - 162
Panasovich, V.A. - 137
Polozhii, G.N. - 288
Polyakov, R.V. - 176, 461, 647
Popov, G.Ya. - 467
Porkhun, L.M. - 249
Portenko, N.I. - 583
Pustovoitov, N.A. - 609

R

Raskin, V.G. - 473
Rodionova, V.S. - 352
Roitberg, Y.A. - 358
Romanenko, V.N. - 478
Rud'ko, V.P. - 726
Rukhlin, B.I. - 483
Rusetskii, Yu.I. - 125
Rybalko, A.M. - 3

S

Sakovich, G.N. - 713
Salekhov, D.V. - 59, 299
Samoilenko, A.M. - 254
Savchenko, L.I. - 30
Savin, C.N. - 168
Senik, P.M. - 590
Sereda, V.Yu. - 233
Shamanskii, V.E. - 197
Sharkovskii, A.N. - 131, 135, 620
Sharshanov, A.A. - 369
Shimanov, S.N. - 703

Shmul'yan, Yu. L. - 308
Shtokalo, I. Z. - 375
Skorokhod, A. V. - 316
Skripnik, V. P. - 487
Sleptsova, G. P. - 509
Smogorzhevskii, A. S. - 78
Sobolevskii, P. E. - 473
Sochnev, A. Ya. - 442
Stepanets, A. I. - 176, 461
Studnev, Yu. P. - 256
Suvorov, G. D. - 71
Sytaya, G. N. - 730

T

Temchenko, M. E. - 509
Todorov, P. G. - 492

V

Vinnichenko, N. G. - 218
Virchenko, N. A. - 78
Vlasenko, V. F. - 716
Volkov, Yu. I. - 597
Vorob'ev, N. N. - 106, 647

Y

Yadrenko, M. I. - 316
Yurchenko, A. S. - 223

Z

Zaitsev, D. I. - 408
Zharii, Yu. I. -223

UKRAINIAN MATHEMATICAL JOURNAL

Volume 20, Numbers 1-6, 1968

(A translation of Ukrainskii Matematicheskii Zhurnal)

Engl./Russ.

Volume 20, Number 1 January-February, 1968

Continual Analogues of Polynomials Orthogonal on a Circle—N. I. Akhiezer and A. M. Rybalko	3	1
Existence Theorem for a Nonlinear Free Boundary-Value Problem—I. I. Danilyuk	25	22
Solution of a Boundary Value Problem for a Nonlinear System of Second Order Ordinary Differential Equations—Yu. I. Kovach and L. I. Savchenko	30	34
Chebyshev Approximation of Certain Operators. I—V. D. Koromyslichenko	40	45
Relationships between the Sets of Lebesgue-Banach and Lebesgue-Orlicz Points for Functions from an Orlicz Space—D. V. Salekhov	59	66
Uniform Stability of Conformal Mappings of Closed Regions—G. D. Suvorov	71	78
ANNIVERSARIES		
Seventy-Fifth Anniversary of the Birth of Mikhail Filippovich Kravchuk—N. A. Virchenko, V. A. Dobrovol'skii, Yu. A. Mitropol'skii, and A. S. Smogorzhevskii	78	85
Iosif Zakharovich Shtokalo, on the Occasion of His Seventieth Birthday—Yu. A. Mitropol'skii and A. N. Bogolyubov	85	92
BRIEF COMMUNICATIONS		
Growth of Solutions of N-th Order Nonlinear Differential Equations with Delay—N. V. Barkovskaya	91	98
On Some Iteration Methods of Solving Nonlinear Operator Equations—M. Ya. Bartish	97	104
Simultaneous Approximation of Functions and Their Derivatives in a Complex Domain—N. N. Vorob'ev	106	113
Quantity of Periodic Solutions for a System of Nonlinear Ordinary Differential Equations with Periodic Coefficients—I. G. Kozubovskaya	112	119
Extremal Properties of Meromorphic Functions in Multiply Connected Domains—I. P. Mityuk	116	122
Equilibrium Stability of Voronets' Nonholonomic Systems—I. V. Nikolenko	121	127
Linear Methods of Approximating Conjugate Functions—Yu. I. Rusetskii	125	131
Attractive Sets not Containing Cycles—A. N. Sharkovskii	131	136
Viktor Vladimirovich Nemytskii—Yu. A. Mitropol'skii, V. N. Kasperov, and A. N. Sharkovskii	135	143

Volume 20, Number 2 March-April, 1968

Estimate of Residue for Some Cubature Formulas—V. K. Dzyadyk and V. A. Panasovich	137	147
The Stability of the Solution of a System of Linear Differential Equations with Periodic Coefficients—A. G. Ilyukhin	144	156
Construction of Solutions of Almost Diagonal Systems of Linear Differential Equations Using the Accelerated Convergence Method—Yu. A. Mitropol'skii and E. P. Belan	153	166
An Approximate Unit in the Group Algebra of a Ring Group—V. G. Palyutkin	162	176
Brief Survey of Research in the Academy of Sciences of the Ukrainian SSR on the Mechanics of Deformable Solids—C. N. Savin	168	183

	Engl./Russ.	
Approximation of Continuous Functions by Regular Polynomials—A. I. Stepanets and R. V. Polyakov	176	192
Averaging Method for Neutral Differential-Difference Equations—V. I. Fodchuk	185	203
Special Characteristics of Partial Differential Equations of the Second Order —N. N. Chaus	191	210
Linearization Method for Solving Nonlinear Boundary Value Problems —V. E. Shamanskii	197	218
JUBILEE NOTES		
Jean Le Rond d'Alembert on the 250th Anniversary of His Birth—K. A. Breus	205	228
Dmitrii Matveevich Sintsov on the 100th Anniversary of His Birth—I. A. Naumov	208	232
BRIEF COMMUNICATIONS		
One Method of Analytically Continuing the Riemann Zeta-Function—V. P. Burlachenko	213	238
Counting of Abelian Words Formed from Letters of Some Collection of Alphabets —N. G. Vinnichenko	218	243
Hereditary Orders—Yu. A. Drozd and V. V. Kirichenko	221	246
Solvability of a Nonlinear Boundary Value Problem—Yu. I. Zharii and A. S. Yurchenko	223	248
Theory of Characteristic Functions of Operator Nodes—L. E. Isaev	228	253
Concerning a Method of Solution of Linear Integral Equations of the Second Kind —A. F. Kalaida and V. Yu. Sereda	233	257
Periodic Solutions of Quasilinear Autonomous Systems with Time-Lag —I. G. Kozubovskaya and D. I. Martynyuk	239	263
On a Problem of Bing—V. P. Kompaniets	241	265
On Boundary Value Problems with Translation and Conjugation for Systems of Analytic Functions—G. S. Litvinchuk and E. G. Khasabov	245	269
Analysis of the Nonstationary Oscillations of a System with Slowly Varying Parameters under the Influence of Random Perturbations—L. M. Porkhun	249	272
Reducibility of Systems of Linear Differential Equations with Quasi-Periodic Coefficients—A. M. Samoilenko	254	279
One Form of Estimating the Rate of Convergence to a Normal Law—Yu. P. Studnev	256	281
OBITUARY		
Lev Érnestovich Él'sgol'ts—Yu. A Mitropol'skii, V. I. Fobchuk, and Ts. G. Korenevskii.	260	286

Volume 20, Number 3 May-June, 1968

On Singular Problems of Goursat and Cauchy—M.B. Kapilevich	261	291
On the Chebyshev Approximation of Some Operators. II —V.D. Koromyslichenko	274	308
Affine Transformations of p-Analytic and (p, q)-Analytic Functions of a Complex Variable—G.N. Polozhii	288	325
On the Properties of Lebesgue—Orlicz Points of Different Orders —D.V. Salekhov	299	340
On J-Dilating Operators in J-Spaces—Yu.L. Shmul'yan	308	352
JUBILEE NOTES		
Fiftieth Birthday of Iosif Il'ich Gikhman—I.I. Danilyuk, V.S. Korolyuk, Yu.A. Mitropol'skii, A.V. Skorokhod, and M.I. Yadrenko	316	363
BRIEF COMMUNICATIONS		
A Difference Analog of a Linearization Method—M.Ya. Bartish	320	367

	Engl./Russ.	
Stable Integral Manifolds of a Nonlinear Differential Equation in Banach Space—Yu.L. Daletskii	327	376
Analysis of Bypass Filtration behind an Abutment at the Connection of a Spillway Dam with a Tidal Earth Dam—V.G. Degtyar'	332	381
An Ergodic Theorem for Probabilistic Processes with Semi-Markovian Interference of Change—I.I. Ezhov	335	384
Random Oscillations of Nonautonomous Quasilinear Stochastic Systems —V.G. Kolomiets	338	388
The Asymptotic Normality of the Solution of the Stochastic Diffusion Equation —G.L. Kulinich	344	396
Estimates of the Growth of Average Eigenfunctions of Self-Adjoint Operators —Yu.P. Orochko	348	400
Some Limit Theorems for Integral Equations of Convolution Type —V.S. Rodionova	352	405
Solvability of General Boundary-Value Problems for Elliptic Equations with Right-Hand Sides Having Power Singularities—Y.A. Roitberg	358	412
Stability of Rectangular Sandwich Plates under Complex Boundary Conditions—G.I. Kharkhun	363	418
Functional for One Type of Optimal Problems—A.A. Sharshanov	369	427
CHRONICLES		
Completion of the Department of Mathematics, Mechanics, and Cybernetics of the Academy of Sciences of the Ukrainian SSR—A.V. Moskalyuk	373	431

Volume 20, Number 4 July-August, 1968

Karl Marx-Founder of Scientific Communism—I.Z. Shtokalo	375	435
Integral Manifolds of Irregularly Perturbed Differential Systems —Y.S. Baris	379	439
The Stability of Almost Diagonal Systems of Linear Differential Equations —E.P. Belan	388	449
Inclusion and Equivalence of Toeplitz Methods for Summing Series —N.A. Davydov	398	460
Groups Satisfying the Weak Minimal Condition—D.I. Zaitsev	408	472
The Stability of a Limit Cycle of Multivariate Autonomous Systems under Disturbances in the Right-Hand Sides—V.V. Korolev	417	483
The Spectrum and Resolvent of a Non-Selfadjoint Difference Operator —V.E. Lyantse	422	489
The Integral Representation of p-Analytic Functions with Characteristic $p=e^{\alpha x_y k}$—N.A. Pakhareva and I.V. Aleksandrovich	435	504
Approximation of Ultra-Elliptic and Elliptic Integrals without Infinite Series Expansion of the Integrands—A.Ya. Sochnev	442	514
BRIEF COMMUNICATIONS		
Constructing Solutions to Ordinary Differential Equations in Space —B.M. Bogatyrev	449	522
A Frequency Criterion in the Simplest Critical Case for Absolute Stability of Controllable Systems with Many Nonlinearities—Yu.G. Ostapov	455	528
Approximating Quasismooth Functions by Ordinary Polynomials —R.V. Polyakov and A.I. Stepanets	461	534
A Remarkable Property of Jacobi Polynomials—G.Ya. Popov	467	540
A Priori Estimates of Solutions to a Certain Class of Nonlinear Nonstationary Equations—V.G. Raskin and P.E. Sobolevskii	473	547

	Engl./Russ.	
A Control Problem—V.N. Romanenko	478	553
Solution of the Fuchs Integral Equation of First or Second Order in the Class of Generalized Functions—B.I. Rukhlin	483	557
Stability in a Neighborhood of a Certain State—V.P. Skripnik	487	562
The Theory of One-Sheeted Mappings—P.G. Todorov	492	567
CHRONICLES		
Defense of Dissertations before the Academic Council of the Institute of Mathematics of the Academy of Sciences of the Ukrainian SSR in 1966-1967—I.G. Kozubovskaya	493	568
Fourth Scientific Conference of Young Mathematicians of the Ukraine —V.V. Barkovskii, M.L. Gorbachuk, and I.G. Kozubovskaya	502	575

Volume 20, Number 5 September-October, 1968

Realization of a Variation of the Relaxation Method—B. A. Galanov and S. N. Malakhovskaya	503	579
The Stability of Motion of a Solid Body Containing a Liquid-Filled Cavity Suspended by a Cord—M. L. Gorbachuk, G. P. Sleptsova, and M. E. Temchenko	509	586
On a Constructive Characteristic of Functions of Hölder Classes on Closed Sets with a Piece-Wise Smooth Boundary Admitting Zero Angles—V. K. Dzyadyk	523	603
The Construction of Certain Conformal and Quasi-Conformal Mappings for Multiply Connected Regions—G. S. Lipovoi	536	620
The Reducibility of Some Differential Equations in Banach Space—O. B. Lykova and B. M. Bozatyrev	542	628
Differentiability of Fundamental Solutions of Elliptic Equations—M. I. Matiichuk and S. D. Éidel'man	554	642
Reduction Principle in the Theory of Stability of Linear Differential Equations —Yu. A. Mitropol'skii and E. P. Belan	563	654
On the Nonrealizability of the Libration Points of a Gravitating Ellipsoid—S. I. Nikolaev	569	661
On the Existence of One Class of Additive Functionals of Diffusion Processes —N. I. Portenko	583	676
The Construction of Asymptotic, Improved in the Mean, Quasi-Periodic Solutions for Essentially Nonlinear Svstems—P. M. Senik	590	685
BRIEF COMMUNICATIONS		
About a Connection between the Properties of a Function on the Circumference and Its Properties in the Interior of the Circle—Yu. I. Volkov	597	694
The Reduction of a Boundary-Value Problem to Contour Regular Integral Equations —S. P. Gavelya	602	699
The Approximate Solution of a Class of Singular Integral Equations with a Shift by the Method of Averaging Functional Corrections—V. G. Ivanitskii	604	700
On the Stability of the Solution of a System of Linear Differential Equations with a Small Parameter—A. G. Ilyukhin and N. A. Pustovoitov	609	705
Conditions for Optimum Capture in the Case of Weak Focusing—I. G. Kozubovskaya	614	710
Convergence and Stability of the Ritz Method—A. Yu. Luchka	617	713
The Center of a Coarse Dynamical System—A. N. Sharkovskii	620	717

Volume 20, Number 6 November-December, 1968

New Approach to the Solution of Nonlinear Boundary Value Problem — I. V. Beiko and M. F. Beiko	623	723

	Engl./Russ.	
On Locally Finite Semigroups – T. K. Brown	631	732
Family of Solutions with a Finite Number of Parameters of a System of Differential Equations with Deviating Argument – K. G. Valeev and N. A. Kulesko	637	739
Constructive Characteristic of Continuous Functions Defined on Smooth Arcs – N. N. Vorob'ev and R. V. Polyakov	647	750
Analytic Continuation of the Resolvent cf a Self-Adjoint Operator across Its Continuous Spectrum – L. I. Dyuzhenkova and L. P. Nizhnik	655	759
Stabilization of a Solution of a Parabolic Boundary Problem – Ya. S. Kushitskii	661	766
Stable Integral Manifolds for a Class of Singularly Perturbed Systems with Lag – Yu. A. Mitropol'skii and V. I. Fodchuk	683	791
Correct Problem for the Wave Equation without Initial Data – L. P. Nizhnik	692	802
Asymptotic Determination of Single-Frequency Vibrations in a Quasi-Linear Autonomous System with Time-Lag – S. N. Shimanov	703	814
ANNIVERSARIES		
Georgii Feodos'evich Voronoi (On the Centenary of His Birth and Sixtieth Anniversary of His Death)	713	826
BRIEF COMMUNICATIONS		
Negative Results Concerning the Summation of Diluted Series – V. F. Vlasenko	716	830
Singular Points in the Complex Potential of a Forming Field – E. P. Grankin	719	833
Sojourn Time in a Given State of Two Independent Semi-Markov Processes – L. M. Kovaleva	723	837
Rational Tensor Algebra of Modular Representations of Cyclic P-Groups – V. P. Rud'ko	726	841
Limit Distribution of Multiple Integrals of a Brownian Process – G. N. Sytaya	730	845
Remark on the Structure of Aronhold's Invariants – S. I. Chernyshev	737	852
CHRONICLES		
Republican Symposium on Differential Equations – N. I. Gavrilov	740	855
OBITUARY		
Georgii Nikolaevich Polozhii – V. V. Ivanov and I. I. Lyashko	742	856
BOOK REVIEWS		
The History of Mathematics in Our Country, Vol. 1 (From Ancient Times to the End of the Eighteenth Century), Vol. 2 (1801-1917) – Reviewed by I. I. Bavrin, Yu. M. Kolyagin, and G. L. Lukankin	744	858
INDEX		
Author Index, Numbers 1-6, 1968	747	
Tables of Contents, Numbers 1-6, 1968	749	